



# FOOTPRINTS OF FINTECH ON FINANCIAL INCLUSION – EVIDENCE FROM DIGITAL BANKING SYSTEM

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## ABSTRACT

Fintech is considered as the vehicle of financial inclusion. The research paper attempts to explain the impact of fintech on financial inclusion through various types of digital banking activities. The research paper mainly focuses to analyse the growth of digital banking activities with the help of fintech to achieve complete financial inclusion. India has also witnessed the miracle of fintech in the field of banking & finance sector (Prateek Roongta, and Karthik Raghupathy n.d.). Complete financial inclusion is a step towards developing a cashless economy. With the help of fintech services and fintech software people conducting their daily activities related to money is now a piece of cake. Hence, the paper is attempted to analyse the growth in digital banking with the help of financial technology. This study also analyses the measurements of currency, the enablers for payment systems, and the measures of electronic payments. The paper studies the measures of cash, electronic payments, and the enablers for payment systems, over the last 5 years. To ascertain the changes in India, if any, from cash to digital payments. It has discussed the enormous opportunities that recent financial innovations offer, but also the risks that might come from them.

**KEYWORDS:** Financial Inclusion, Fintech, Digital Banking

## 1. INTRODUCTION

This paper studies the popularly used indicators over the world which denote the use of cash and which are considered as a proxy for cash payments. Almost every area of banking and financial services has transformed due to rapid growth in fintech. The financial sector's interaction with technology has undergone a progressive transformation that has provided a roadmap for India's fintech ecosystem (By Infosys 2018). This research study provides an overview of recent advancements in technologically driven financial innovation and their impact on financial inclusion. Recent financial innovations offer enormous opportunities as well as challenges, which have been discussed. This paper has summarized recent developments in technology-driven financial innovation and how they have affected financial inclusion. Till now, India is a developing country and facing lots of challenges in the Banking and Finance sectors. India mostly depends on cash about 28,26,863 crore rupees value of banknotes in circulation in 2020-21. Everyone is expecting this year so it would be reduced but in 2021-22 Rs. 31,05,721 crore currency is in circulation. It clearly shows, how long will it take a cash-driven country into a cashless economy. With the help of fintech companies and fintech software, it may be possible to drag people into the digital world. Banking system to save invest and spend their money. The last 5 to 10 years have vigorously changed the technology in the financial sector. In India, there are many initiatives taken by Indians as made-in-India payment apps successfully launched BHIM, PhonePe, Paytm, Mobikwik & Freecharge app. Even now 1.7 billion or around 30% of the total population are financially excluded (according to Taylor Smith journalist in The Fintech Times).

## What is Fintech?

The term "fintech" refers to significantly greater than merely financial technology, it is not limited to finance, it is being widely used in many fields. (KPMG Report 2016) Fintech is frequently considered the cutting-edge technology that is utilised to enhance conventional way of financial practices. It creates effective and efficient options for financial services that keep up with the most recent technological advancements. Famous instances of financial technology development include various typed banking software for all the services provided by the bank and mobile banking applications (Mehrotra 2019).



(Sabapathy Narayanan n.d.)

Banks, in particular, have been offering mobile banking services through all three channels – SMS, USSD (Unstructured Supplementary Services Data), and mobile applications (Bohdana Muzyka 2022).

## 2. REVIEW OF LITERATURE:

**(Gabor and Brooks 2017)** The author explained in the paper entitled the importance and relationship between Fintech and financial inclusion. This study focused on the opportunity and challenges faced by India and Kenya countries during the adoption of mobile banking and digital transactions. He also tries to explain peer-to-peer learning in terms of China. **(Ryan North 2018)** He studied the major development in Fintech which can affect financial inclusion and also discussed opportunities and challenges faced by businesses in the coming future. **(Arner et al. 2020)** The author states the importance of growing digital business in financial inclusion. **(Goswami, Sharma, and Chouhan 2022)** They have conducted a research study the influencing variables which help in the adoption of technology in rural areas of India and also the impact of Fintech on financial inclusion. With 6050 respondents from 6 different states of India, using a structured questionnaire. They explain financial inclusion is essential for sustainable development poverty reduction and economic stability.

## 3. METHODOLOGY

### Research Objective

1. To analyse the growth of digital banking activities through Fintech.
2. To explore the role of financial technologies (Fintech) in achieving financial inclusion.

The nature of the study is descriptive and analytical research. To analyse the growth rate in the field of digital banking Percentage analysis and (CAGR) Compounded annual growth rate was used. The data is taken for the analysis from the period of FY 2017-18 to FY 2021-22. Data collected from secondary sources have been used in this study, which was obtained from the various official websites, Research papers, Journals, and RBI notifications and publications.

## 4. ANALYSIS AND FINDINGS:

### (a) Currency Notes Circulation in India

The value of Currency note in circulation (CIC) is associated with the usage of cash as a means of payment, which is why the currency used for the payment is one of the major factors influencing currency demand. Over the last five years, during fiscal years (FY) 2017-18 and 2021-22, the CIC expanded at a Compounded Annual Growth Rate (CAGR) of 11.48 percent shown in chart no.1 across the country (Cashlessindia n.d.).



Source: RBI (Reserve Bank of India n.d.)

Chart no. 1 Currency Notes circulation in India

### (b) Currency in circulation as a share of GDP in India FY 2017-2022 (Statista n.d.)

The ratio of currency in circulation (CIC) to India's gross domestic product in the fiscal year 2022 was almost 14%. Since demonetization in 2017, the CIC ratio has significantly increased once more. In periods of rapid economic expansion, India experienced high CIC to GDP ratios. This time, the CIC ratio is predicted to boost during the fiscal year 2021 shown in chart no. 2, despite the recession inflicted by the coronavirus (COVID-19) pandemic and a simultaneous increase in the number of digital payments.



Source: RBI (Reserve Bank of India n.d.)

Chart no. 2 Circulation of Currency Note in comparison GDP as a Percentage of GDP

### (c) Card Payment in terms of Volume and Value through Debit & Credit Card

In the existing financial system, there are several alternatives to transferring money. India has established a wide network of payment methods, from cash-based to card-based to mobile.

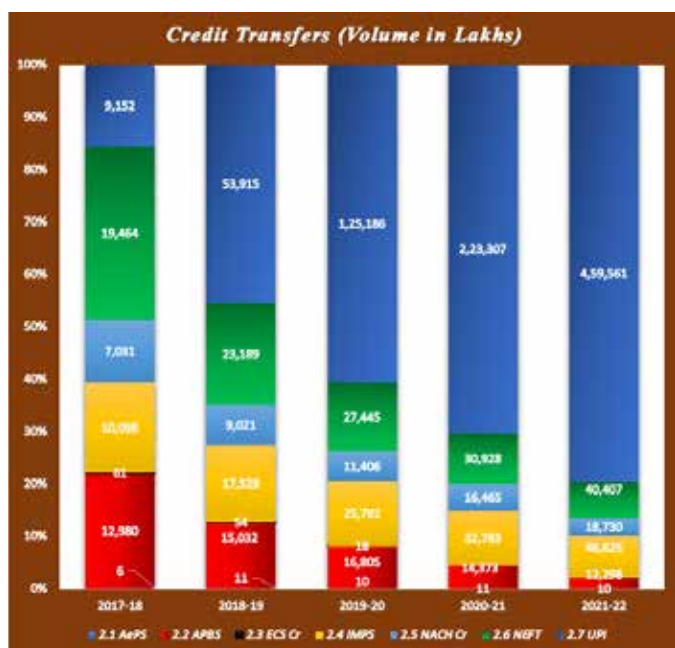


Source: RBI (Reserve Bank of India n.d.)

Chart no.3 Card Payment in Volume through Debit card and Credit Card

### (d) Credit Transfers (Volume) - A massive boost in digital payments.

Retail electronic payments, which include NEFT, quick payments (IMPS and UPI), and direct debits (ECS, NACH), have experienced a massive boom within the digital payments sector, with CAGRs of 65 percent and 42 percent in terms of volume and value, respectively. stored value cash showed growing usage. Credit Transfer includes AePS, APBS, ECS Cr, IMPS, NACH Cr, NEFT, and UPI.



Source: RBI (Reserve Bank of India n.d.)

Chart no.4 Credit Transfers (Volume in Lakhs)

E-cash funds distributed in the form of E-wallets and prepaid cards observed significant usage, with a CAGR of 96% and 78% in terms of volume and value respectively.

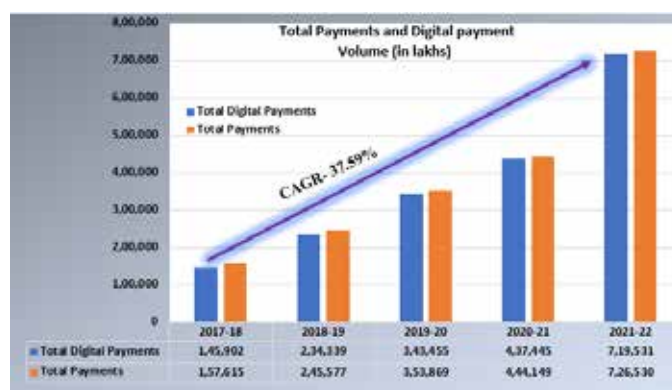
With a market share of more than 50% in the financial year 2022, Unified Payments Interface leads all other Indian payment systems. The National Payments Corporation of India developed the instant real-time payment platform known as UPI to improve interbank transactions.

#### Variety of digital payment

Approximately 71 billion digital payments were recorded across India in the financial year 2022. This was a remarkable growth over the preceding three years. Large-scale interbank payments, such as Real Time Gross Settlement (RTGS) or National Electronic Funds Transfer (NEFT), were included in the overall amount of digital payments, as well as payments made by common people, including such payments through using credit and debit cards. Since 2015, India's mobile payment system, Unified Payments Interface (UPI), has seen significant growth in both numbers and value. As a result, it is not surprising that worldwide significant players such as Google Pay and Amazon Pay have entered the market. However, one of the most popular apps in 2021 was the Made in India app that is PhonePe.

#### (e) Digital Payments Trend in India

While there is no reliable way to evaluate cash payments in the nation, it can be possible to reliably track the growth of different digital payments. Over the previous five years, the volume and value of digital payments in the nation have recorded a CAGR of 37.59 percent and 19 percent, respectively, indicating a significant movement towards digital payments.



Source: RBI (Reserve Bank of India n.d.)

Chart no.5 Total payments and digital payments (Volume in Lakhs)

Over 239 billion Indian rupees worth of digital payments were made in India during the 2022 fiscal year. Since 2018, debit card payments have been surpassed by the mobile payment app BHIM (Bharat Interface For Money) among cashless payment methods. Between 2018 and 2022, the value of BHIM transactions and debit card transactions both drastically increased. As of January 2022, the National Financial Switch (NFS) network included more than 255 thousand ATMs. With over 300 million transactions and approximately 1,200 associated members, the NFS is India's biggest network of ATMs (Reserve Bank of India n.d.).

#### Suggestions

1. The future of payments is digital the aforementioned trends will play a major role in India's vision of being a cashless economy.
2. Collaboration between banks, fintech, regulators, and the government is necessary for India's future.
3. NPCI should continuously implement new practices to make digital payments simple and transparent.
4. The adoption of digital payments in the nation will continue to be powered by innovation in technology like UPI.
5. Additionally, when e-RUPI takes command, we could believe to have seen increasing innovation and use of this payment option for donation, government benefits, gift cards, and charitable contributions.
6. These programs are beneficial because these activities help us to achieve financial inclusion in our society.
7. Payments of the future will be digital; the above-mentioned patterns would be crucial to India's vision of becoming a cashless economy.

#### Challenges of Financial Technology

Fintech in various industries, especially banking and finance, primarily faces three major challenges that must be tackled at the earliest (Vijai 2019).

**Cyber Security issue** is one of the main issues facing the fintech sector. Many people have doubts regarding the security of sensitive information. The banking and financial industry is vulnerable to cyberattacks because of its digitalization. For

this, corporate organisations and the government must work together to build systems that are reliable enough to prevent any disclosure of sensitive data.

**Trust issue:** Customers should be able to accept and have faith in the evolving systems. Fintech services are predicted to replace traditional banking and financial services, yet users with traditional mindsets continue to face significant barriers.

**Robotic world:** Lack of Human Touch, Human contact is anticipated to be replaced by chatbots and AI. This could prove to be a significant barrier to the development of several industries that use financial technology to benefit their clients. Therefore, in order to satisfy customers' demands and goals, businesses must try to maintain a personal touch.

## 5. CONCLUSION

Over 239 billion Indian rupees worth of digital payments were made in India during the 2022 fiscal year. This is a sharp increase from the financial year 2018's 20.7 billion Indian rupees. PhonePe held 46% of the share and Google Pay has a 34 percent share of Universal payments interfaces (UPI) in India for the financial year 2022. The top fintech businesses have been significantly influenced by the adoption of UPI in India (Statista n.d.). Since 2018, debit card payments have been surpassed by the mobile payment app BHIM (Bharat Interface for Money) among cashless payment methods. Between 2018 and 2022, the value of BHIM transactions and debit card transactions both dramatically increased. Cyber Security is one of the primary problems of Fintech business. Many people have doubts regarding the security of sensitive information. The banking and financial industry is vulnerable to cyberattacks because of its fraudulent activities. For this, corporate organisations and the government must work together to build systems that are reliable enough to prevent any unauthorized access to confidential data.

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